

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	2	"20030173031"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 09:17
L3	301825	shaft same (lock\$3 secur\$3 retain\$3)	US-PGPUB; USPAT	OR	ON	2006/04/14 09:18
L4	258636	118/728-730.ccls. 156/345.51-345.55.ccls. "204"/\$.ccls. "216"/\$.ccls. 414/935.ccls. "427"/\$.ccls. "438"/\$.ccls.	US-PGPUB; USPAT	OR	ON	2006/04/14 09:19
L5	1103	L4 and (shaft near4 (lock\$3 retain\$3 secur\$3))	US-PGPUB; USPAT	OR	ON	2006/04/14 09:21
L6	680	5 and (hub socket sleeve tub\$3 bush\$3)	US-PGPUB; USPAT	OR	ON	2006/04/14 09:20
L7	262	L4 and ((shaft near4 (lock\$3 retain\$3 secur\$3) same (hub socket sleeve tub\$3 bush\$3)))	US-PGPUB; USPAT	OR	ON	2006/04/14 09:21
L8	967	118/730.ccls. 156/345.55.ccls.	US-PGPUB; USPAT	OR	ON	2006/04/14 10:04
L9	99	L8 and (shaft near4 (key retain\$3 secur\$3 lock\$3))	US-PGPUB; USPAT	OR	ON	2006/04/14 12:27
L10	25006	(shaft near4 (key retain\$3 secur\$3 lock\$3)) same (transverse right perpendicular\$4)	US-PGPUB; USPAT	OR	ON	2006/04/14 12:28
L11	163	10 and 4	US-PGPUB; USPAT	OR	ON	2006/04/14 12:28
L12	3538	(shaft near3 (key retain\$3 secur\$3 lock\$3)) near5 (transverse right perpendicular\$4)	US-PGPUB; USPAT	OR	ON	2006/04/14 12:31
L13	21	12 and 4	US-PGPUB; USPAT	OR	ON	2006/04/14 12:29
L14	861	(shaft near (key retain\$3 secur\$3 lock\$3)) near4 (transverse right perpendicular\$4)	US-PGPUB; USPAT	OR	ON	2006/04/14 12:33
L15	87649	(key retain\$3 secur\$3 lock\$3) near4 (transverse right perpendicular\$4)	US-PGPUB; USPAT	OR	ON	2006/04/14 12:32
L16	29905	15 and shaft	US-PGPUB; USPAT	OR	ON	2006/04/14 12:32
L17	927	.15 and (shaft near2 key)	US-PGPUB; USPAT	OR	ON	2006/04/14 12:32
L18	6	17 and 4	US-PGPUB; USPAT	OR	ON	2006/04/14 12:32

## EAST Search History

L19	5	(shaft near2 (key near3 (right near angle\$2)))	US-PGPUB; USPAT	OR	ON	2006/04/14 12:34
L20	140	shaft same (anti-rotation near4 (key lock\$3))	US-PGPUB; USPAT	OR	ON	2006/04/14 12:50
L21	8	20 and (right near2 angle\$2)	US-PGPUB; USPAT	OR	ON	2006/04/14 12:37
L22	442	key\$2 near4 (right near2 angle\$2)	US-PGPUB; USPAT	OR	ON	2006/04/14 12:38
L23	338	key\$2 near3 (right near2 angle\$2)	US-PGPUB; USPAT	OR	ON	2006/04/14 12:38
L24	5	23 and (anti near rotation\$3)	US-PGPUB; USPAT	OR	ON	2006/04/14 12:38
L25	1	shaft same (anti-rotation near4 (key near3 lock\$3))	US-PGPUB; USPAT	OR	ON	2006/04/14 12:56
L26	12	(anti near rotation\$2) same (selective\$3 near2 lock\$2)	US-PGPUB; USPAT	OR	ON	2006/04/14 13:25
L27	13	(anti near rotation\$2) same (selective\$3 near3 lock\$2)	US-PGPUB; USPAT	OR	ON	2006/04/14 13:54
L28	2	(anti near rotation\$2) same (lock\$2 near3 (two near position))	US-PGPUB; USPAT	OR	ON	2006/04/14 13:55
L29	1608	(anti near rotation\$2) same (key\$2 lock\$2)	US-PGPUB; USPAT	OR	ON	2006/04/14 13:56
L30	69	29 and (two near position)	US-PGPUB; USPAT	OR	ON	2006/04/14 15:29
L31	11682	(two near position) same (lock\$3 key\$2)	US-PGPUB; USPAT	OR	ON	2006/04/14 14:03
L32	56	31 and (anti near rotation\$3)	US-PGPUB; USPAT	OR	ON	2006/04/14 14:00
L33	3221	(two near position) near3 (lock\$3 key\$2)	US-PGPUB; USPAT	OR	ON	2006/04/14 14:04
L34	6	33 and 4	US-PGPUB; USPAT	OR	ON	2006/04/14 14:04
L42	2	"20030205324"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 15:20
L43	2	"20030173031"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 15:22

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L44	2	"5562947".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 15:26
L45	2	"6486550".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/14 15:27
L46	252	29 and "300"	US-PGPUB; USPAT	OR	ON	2006/04/14 15:29
L47	3	29 and "300 mm"	US-PGPUB; USPAT	OR	ON	2006/04/14 16:11
L48	64	(thomas near2 weeks).in. (lewis near2 barnett).in. (loren near2 jacobs).in. (michael near2 halpin). in.	US-PGPUB; USPAT	OR	ON	2006/04/14 16:13
L49	128	"64" and ((substrate near support) same lock\$3)	US-PGPUB; USPAT	OR	ON	2006/04/14 16:15
L50	1	48 and ((substrate near support) same lock\$3)	US-PGPUB; USPAT	OR	ON	2006/04/14 16:18
L51	125	(ASM near2 america).as.	US-PGPUB; USPAT	OR	ON	2006/04/14 16:17
L52	98	51 not 48	US-PGPUB; USPAT	OR	ON	2006/04/14 16:17
L53	2	52 and ((substrate near support) same lock\$3)	US-PGPUB; USPAT	OR	ON	2006/04/14 16:18
S1	1	"20050166849"	US-PGPUB; USPAT	OR	ON	2006/04/13 12:43
S2	5	("5044943" "5117769" "5374315" " 5527393" "6113702").PN.	US-PGPUB; USPAT	OR	ON	2006/04/13 10:09
S3	862	156/345.51-345.55.ccls.	US-PGPUB; USPAT	OR	ON	2006/04/13 10:10
S4	3244	156/345.51-345.55.ccls. 118/728-730.ccls.	US-PGPUB; USPAT	OR	ON	2006/04/13 11:24
S5	332	S4 and slip\$4	US-PGPUB; USPAT	OR	ON	2006/04/13 17:18
S6	13	S4 and (rotati\$4 near3 slip\$4)	US-PGPUB; USPAT	OR	ON	2006/04/13 10:22
S7	89	S4 and (rotati\$4 same slip\$4)	US-PGPUB; USPAT	OR	ON	2006/04/13 10:24
S8	14	S4 and (rotati\$4 and (slip\$4 near4 preventi\$3))	US-PGPUB; USPAT	OR	ON	2006/04/13 11:27

## EAST Search History

S9	82	S7 not S8	US-PGPUB; USPAT	OR	ON	2006/04/13 10:31
S10	71	S9 not S6	US-PGPUB; USPAT	OR	ON	2006/04/13 10:32
S11	258636	156/345.51-345.55.ccls. 118/728-730.ccls. "204"/\$.ccls. "216"/\$.ccls. "427"/\$.ccls. "438"/\$.ccls. 414/935.ccls.	US-PGPUB; USPAT	OR	ON	2006/04/13 11:26
S12	70	S11 and (rotati\$4 and (slip\$4 near4 preventi\$3))	US-PGPUB; USPAT	OR	ON	2006/04/13 11:27
S13	70	S12 not S10	US-PGPUB; USPAT	OR	ON	2006/04/13 11:36
S14	1175	(shaft near4 slip\$4) same (prevent\$3 avoid\$4 stop\$3)	EPO; JPO; DERWENT	OR	ON	2006/04/13 11:39
S15	10	S14 and (substrate wafer)	EPO; JPO; DERWENT	OR	ON	2006/04/13 11:38
S16	671	(shaft near4 rotati\$5) same (slip\$4 same (prevent\$3 avoid\$4 stop\$3))	EPO; JPO; DERWENT	OR	ON	2006/04/13 11:41
S17	1	S16 and (substrate near3 (support holder))	EPO; JPO; DERWENT	OR	ON	2006/04/13 11:41
S18	18617	(shaft near4 rotati\$5) same (slip\$4 same (prevent\$3 avoid\$4 stop\$3))	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/13 11:41
S19	37	S18 and ((substrate wafer) near3 (support holder))	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/13 11:51
S20	1036	118/730.ccls. 156/345.55.ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/13 11:51
S21	967	118/730.ccls. 156/345.55.ccls.	US-PGPUB; USPAT	OR	ON	2006/04/13 14:33
S22	7	S21 and (shaft near4 key)	US-PGPUB; USPAT	OR	ON	2006/04/14 10:04
S23	78	shaft same (anti-rotation near4 key)	US-PGPUB; USPAT	OR	ON	2006/04/14 12:35
S24	3	S4 and (shaft same (anti-rotation near4 key))	US-PGPUB; USPAT	OR	ON	2006/04/13 12:51
S25	0	S4 and (shaft same (antirotation near4 key))	US-PGPUB; USPAT	OR	ON	2006/04/13 12:51
S26	3	S4 and (shaft same ((anti near rotation) near4 key))	US-PGPUB; USPAT	OR	ON	2006/04/13 12:52
S27	0	S4 and (shaft same (slip near4 key))	US-PGPUB; USPAT	OR	ON	2006/04/13 12:52
S28	1854056	(support holder susceptor chuck)	US-PGPUB; USPAT	OR	ON	2006/04/13 12:53

## EAST Search History

S29	345267	S28 and (substrate wafer)	US-PGPUB; USPAT	OR	ON	2006/04/13 12:53
S30	127416	S29 and (shaft drive)	US-PGPUB; USPAT	OR	ON	2006/04/13 12:55
S31	34849	S29 and ((shaft drive) same rotati\$4)	US-PGPUB; USPAT	OR	ON	2006/04/13 12:56
S32	27951	S31 and (key\$2 prevent\$3 slip\$4)	US-PGPUB; USPAT	OR	ON	2006/04/13 12:58
S33	989	S31 and (key\$2 same (prevent\$3 slip\$4))	US-PGPUB; USPAT	OR	ON	2006/04/13 13:00
S34	139	S31 and ((shaft near4 key\$2) same (prevent\$3 slip\$4))	US-PGPUB; USPAT	OR	ON	2006/04/13 13:01
S35	258636	118/728-730.ccls. 156/345.51-345. 55.ccls. "204"/\$.ccls. "216"/\$.ccls. 414/935.ccls. "427"/\$.ccls. "438"/\$. ccls.	US-PGPUB; USPAT	OR	ON	2006/04/13 14:36
S36	17	S35 and ((shaft near5 prevent) same (relative near3 (motion movement rotation\$3)))	US-PGPUB; USPAT	OR	ON	2006/04/14 09:19
S37	3499	((shaft near5 prevent) same (relative near3 (motion movement rotation\$3)))	US-PGPUB; USPAT	OR	ON	2006/04/13 14:52
S38	45	S37 and ((substrate wafer) near2 (holder support))	US-PGPUB; USPAT	OR	ON	2006/04/13 14:53
S39	34	S38 not S36	US-PGPUB; USPAT	OR	ON	2006/04/13 14:53
S40	29	S4 and (shaft near3 taper\$3)	US-PGPUB; USPAT	OR	ON	2006/04/13 17:18
S41	2	"6454865".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/13 17:29
S42	5	(shaft near4 key\$2) and (key\$2 same (ceramic and quartz))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/13 18:44
S43	0	(shaft near4 key\$2) and (key\$2 near3 (ceramic and quartz))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/13 18:45

## EAST Search History

S44	0	(key\$2 near3 (ceramic and quartz))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/13 18:45
S45	287	key\$2 near3 ceramic	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/13 19:07
S46	156	key\$2 near2 ceramic	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/13 18:57
S47	6	(shaft near3 key\$2) near2 ceramic	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/13 18:47
S48	20	key\$2 near2 quartz	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/13 18:57
S49	2	S45 and torsion	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/13 19:20
S50	8085	ceramic\$2 near3 quartz	US-PGPUB; USPAT	OR	ON	2006/04/13 19:20
S51	6498	ceramic\$2 near2 quartz	US-PGPUB; USPAT	OR	ON	2006/04/13 19:20
S52	3743	ceramic\$2 near quartz	US-PGPUB; USPAT	OR	ON	2006/04/13 19:23
S53	2	(ceramic\$2 near quartz) same key	US-PGPUB; USPAT	OR	ON	2006/04/13 19:21
S54	996	chamber same (ceramic\$2 near3 quartz)	US-PGPUB; USPAT	OR	ON	2006/04/13 19:24

## EAST Search History

S55	743501	(support holder susceptor) same shaft	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/13 19:56
S56	580545	(support holder susceptor) same shaft	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/13 19:57
S57	4673	S56 and S35	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/13 19:57
S58	72	S57 and (prevent\$4 near4 (relative near3 (movement motion rotation)))	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/13 19:58